Cal/Ecotox
Exposure Factors for Northern Flicker (Colaptes auratus)*

Endpoint Type	Endpoint Value	Error	Range	Units	Sex	Life Stage	Location	Note	Reference
Age at Sexual Maturity	review				NR	NR	CANADA; USA	a	1
Body Weight - Mean	140		131-144	g	NR	Adult	CO	b	2
Clutch or Litter Size	8			eggs/clutch	F	Adult	NC	c	3
Clutch or Litter Size	4.20			eggs/clutch	F	Adult	Lab	d	4
Clutch or Litter Size	6.5	1.4 SD	3-12	eggs/clutch	F	Adult	Lab	e	5
Clutch or Litter Size	6.18			eggs/clutch	F	Adult	OH	f	6
Clutch or Litter Size	4.71			eggs/clutch	F	Adult	OH	g	6
Clutch or Litter Size			6.97-7.75	eggs/clutch	F	Adult	NE; WY	h	7
Clutch or Litter Size			4-14	eggs/clutch	F	Adult	USA	i	8
Clutch or Litter Size	7.44	2.24 SD		eggs/clutch	F	Adult	OH	j	9
Dietary Composition	animal food (67.71%), vegetable food (32.26%)				NR	NR	CANADA; USA	k	10
Dietary Composition	predacious ground beetles (3.89%), other beetles (2.66%), ants (53.82%), Hemiptera (1.84%), caterpillars (2.12%), Orthoptera (1.45%), other insects and spiders (1.96%), grain (2.26%), seeds (19.59%), fruit (10.28%)				NR	NR	CANADA; USA	l	10
Dietary Composition	review				NR	NR	CANADA; USA	m	1
Duration of Incubation or Gestation	11			d	NR	Embryo	NC	n	3
Duration of Incubation or Gestation	review				NR	NR	CANADA; USA	o	1
Fledging or Weaning Rate	5.09			fledglings/clutch	NR	Fledgling	OH	p	6
Fledging or Weaning Rate	2.75			fledglings/clutch	NR	Fledgling	OH	q	6
Foraging Distance			0-1.4	km	NR	Adult	CO	r	2
Growth Rate	review				NR	NR	CANADA; USA	s	1
Hatching Success			0.826-0.903		B	Adult	NE; WY	t	7
Hatching Success	3.25			nestlings/clutch	NR	Nestling	OH	u	6
Hatching Success	5.27			nestlings/clutch	NR	Nestling	OH	v	6
Home Range			48-101	ha	NR	Adult	CO	w	2
Population Density	1.26 (20)			pairs/square mile	B	Adult	ND	x	11
Population Density	review				NR	NR	CANADA; USA	y	1
Time of Fledging or Metamorphosis	mid-June to late July				B	Adult	OH	z	9
Time of Fledging or Metamorphosis	review				NR	NR	CANADA; USA	aa	1
Time of Mating/ Laying	review				NR	NR	CANADA; USA	ab	1
Time of Mating/ Laying	review				NR	NR	CANADA; USA	ac	1
Time of Migration or Dispersal	review				NR	NR	CANADA; USA	ad	1
Time of Molt	June-July				NR	Both Adult and Juv.	Lab	ae	12
Time of Molt	review				NR	NR	CANADA; USA	af	1
Time of Nesting	early May to late June				B	Adult	OH	ag	9
Time of Nesting	mid-April to early May				B	Adult	OH	ah	9

Notes

a	N=NR
b	average body weight at time of capture; N=4 birds; Feb-Apr; Lakewood, Jefferson County
c	first clutch size; N=1 nest; May; Asheville, Buncombe County
d	average size of clutches existing in North American oological collections; N=57 clutches; Clutch size for this subspecies is significantly smaller than for other subspecies.
e	average size of clutches existing in North American museum collections; N=411 clutches; Mean clutch size increases by ~1 egg per 10 degree increase in latitude.
f	average size of clutches laid early in the breeding season; N=17 clutches; May-June; New Concord, Muskingum County (40 deg, 00'N, 81 deg, 46'W)
g	average size of clutches laid late in the breeding season (1990-92,1994); N=7 clutches; May-June; New Concord, Muskingum County (40 deg, 00'N, 81 deg, 46'W); Late clutches were significantly smaller than early clutches.
h	range of mean clutch sizes measured among auratus ssp., cafer ssp., and auratus/cafer hybrid flickers; N=10-32 clutches per subspecies or hybrid group; Lincoln, Morrill, Scottsbluff Counties, NE; Platte County, WY; No statistical differences were found in clutch size among flicker subspecies or hybrids.
i	range of clutch sizes; N=191 clutches; The most frequently observed clutch sizes were 6, 7, and 8 eggs. Data are from eastern and southern USA.
j	N=9 pairs; spring; near New Concord; Clutch size was significantly smaller when European starlings were near nest.
k	percent composition of stomach contents; N=183 birds; all
l	percent composition of stomach contents; N=183 birds; all; Approximately 3/4 of sampled birds were collected in California. Species name given in report is Colaptes cafer. See paper for data on seasonal dietary changes and species lists of dietary items.
m	N=NR
n	incubation period; N=1 nest; May; Asheville, Buncombe County
o	N=NR
p	average number of fledglings from clutches laid early in the breeding season (1990-1992, 1994); N=11 clutches; May-June; New Concord, Muskingum County (40 deg, 00'N, 81 deg, 46'W)
q	average number of fledglings from clutches laid late in the breeding season (1990-1992, 1994); N=4 clutches; May-June; New Concord, Muskingum County (40 deg, 00'N, 81 deg, 46'W); Late clutches produced significantly fewer fledglings than early clutches.
r	range of distances between night roost location and the following day's locations; N=4 birds, 20-99 radio fixes per bird; Feb-Apr; Lakewood, Jefferson County
s	N=NR
t	range of mean brood to clutch size ratios measured among male and female auratus ssp., cafer ssp., and auratus/cafer hybrid flickers; N=4-42 clutches per subspecies or hybrid group; Lincoln, Morrill, Scottsbluff Counties, NE; Platte County, WY; No statistical differences were found in brood to clutch size ratio among flicker subspecies or hybrids.
u	average number of nestlings from clutches laid late in the breeding season (1990-1992, 1994); N=4 clutches; May-June; New Concord, Muskingum County (40 deg, 00'N, 81 deg, 46'W); Late clutches produced significantly fewer nestlings than early clutches.
v	average number of nestlings from clutches laid early in the breeding season (1990-1992, 1994); N=11 clutches; May-June; New Concord, Muskingum County (40 deg, 00'N, 81 deg, 46'W)
w	range of home range size based on telemetry location data; N=4 birds, 20-99 radio fixes per bird; Feb-Apr; Lakewood, Jefferson County
x	mean density of breeding birds (maximum density in parentheses); N=130 sample units (160 acres/unit); April-July
y	N=NR
z	N=40 pairs; spring; near New Concord; See paper for frequencies over time.
aa	N=NR
ab	N=NR
ac	N=NR
ad	N=NR
ae	date of onset of postjuvenal and adult molt; N=2500 birds; Data were based on examination of preserved specimens and live birds.
af	N=NR
ag	time of incubation; N=40 pairs; spring; near New Concord
ah	time of nest excavation starts; N=40 pairs; spring; near New Concord; See paper for frequencies over time.

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